

IN THE DRAWINGS

The attached sheet of drawings includes new Fig. 1 and Fig. 2.

Attachment: Sheet with new drawings 1 and 2

REMARKS/ARGUMENTS

Claims 1-28 are pending.

Claims 2, 4, 9-12, 14-15, and 20-24 have been amended.

Claims 25-28 have been added.

Support for the amendments is found in the claims and specification (e.g., page 19, lines 7-8; page 19, lines 30-32; pages 18-19, the bridging paragraph; and page 41, lines 36-37), as originally filed.

The specification has also been amended to comply with the USPTO requirements in response to the Examiner's objection. Figures 1 and 2 have also been submitted as requested by the Examiner. Support for the drawings can be found on page 6, lines 25-27; page 8, lines 11-13, page 19, lines 7-8; page 41, lines 10-37; and page 46, lines 18-19.

No new matter is believed to have been added.

Priority

The Examiner has alleged that a certified copy of the priority application DE 10336131.6 has not been submitted. Applicants respectfully disagree.

The present application is a national stage of the PCT/EP04/02627 application. A certified copy of the DE 10336131.6 priority application has been submitted to the International Bureau in PCT/EP04/02627 and a Request for Priority under 35 U.S.C. 119 has been submitted with in the present application. See the attached PCT Notification Concerning Submission or Transmittal of Priority Document, Request for Priority, and a Transmittal Letter. Thus, the certified copy of the DE 10336131.6 priority application has been submitted. Applicants request again granting benefit of the filing date of the DE 10336131.6 priority application, i.e., August 4, 2003.

Claim Objection

Claims 1, 5, 8, and 16-18 have been objected because the Examiner is of the opinion that the claims do not recite a structure producing the claimed result. Claim 1 has been amended by introducing the limitation of claim 2 that has not been objected. Applicants request that the objection be withdrawn.

Claims 20-24 have been objected because there is no process recited in claim 1. Claims 20-24 have been amended as suggested by the Examiner to introduce the limitation “the rear-rejection screen.” Applicants request that the objection be withdrawn.

Objection to the specification

(a) The specification has been amended to comply with the USPTO requirements in response to the Examiner’s objection. Applicants request that the objection to the specification be withdrawn.

(b) Applicants has submitted Figures 1 and 2 as requested by the Examiner. Applicants request that the drawings be accepted and the objection to the drawings be withdrawn.

Art Rejections

Claims 1-24 are rejected under 35 U.S.C. 102(b) or 103(a) over Murayama et al., EP 1152286. The rejections are traversed because:

(1) Murayama et al. do not describe or suggest:

(a) the claimed halved-intensity angle of the scattering layer and the backing layer (claims 1, 8, and 28);

(b) a backing layer that does not comprise the scattering particles and is transparent (claims 21 and 25);

(c) the claimed gloss (claims 1 and 5), the average surface roughness (claims 4 and 12); a film applied on the backing layer (claim 7); the scattering layer comprising two types

of particles (claims 13-14); the transmittance (claim 16); a path difference (claim 17); the yellowness of the screen (claim 18); the weathering (claim 19); embossing the backing layer with an embossing roll (claim 26); and the yellowing index of the backing layer (claim 27);

(2) modifying the structure and method of Murayama et al. to achieve the claimed rear-projection screen and the claimed methods are not obvious; the claimed properties are not result effective variable and discovering the claimed properties is not routine.

The claimed rear-projection screens do not exhibit undesired reflection images in the room (page 5 of the present specification). These screens permit particularly high picture quality, high picture sharpness and resolution of the projected picture. Id. The images on the rear-projection screens have good color accuracy. Id. The rear-projection screens have particularly uniform brightness distribution and maximum mechanical stability. Scratches on the screen are invisible or only very slightly visible. Id. Damages have no, or only very slight, effect on the imaging capability of the screen. Id. The rear-projection screens can be produced by simple methods, e.g., via extrusion. Id. Further, the claimed rear-projection screens have high picture steadiness and, therefore, the presented images can be viewed for a long period without fatigue. Id. A size and shape the claimed rear-projection screens can easily be adapted to requirements. Id. The claimed rear-projection screens has high durability, in particular high resistance to UV irradiation or weathering and imaging properties involve only very little reflection (page 6).

(1) Murayama et al. do not describe or suggest the claimed rear projection screen.

Murayama et al. describe a rear projection screen comprising two light diffusion layers (see Examples 1 and 2, Tables 1-2). Both layers comprise diffusion particles and base materials (see the drawings). The rear projection screen has an angle α (an angel of a visual field at which a half of the screen gain is obtained) (see [0116]) equal to 33.9° (Table 2,

Example 2). The first layer has an angle β (an angel of a visual field at which a one third of the screen gain is obtained) (see [0117]) equal to 3.8° (Table 1, Example 2, a second layer).

The Examiner referred to Table 2, Example 2, second PMMA layer as a diffusion layer having α of 33.9°. At the same time, the Examiner referred to Table 1, Example 2, second PMMA layer as a carrier layer having β of 3.8°. Thus, it is not clear how the same second PMMA can be the diffusion and carrier layer and have different angles at the same time. See page 8, first paragraph of the Official Action.

Murayama et al. do not describe a halved-intensity angle of each layer but only describes a halved-intensity angle of the screen (i.e., two layers combined) and a one third of the screen gain of each the first and the second layer (Tables 1-2; [0116]-[0117]). A one third of the screen gain is not necessarily the same as a half of the screen gain. Also, a half of the screen gain for the screen is not necessarily the same as that of the separate layers.

In addition, Murayama et al. do not describe a backing layer that does not comprise the scattering particles and is transparent (claims 21 and 25); the claimed gloss (claims 1 and 5), the average surface roughness (claims 4 and 12); a film applied on the backing layer (claim 7); the scattering layer comprising two types of particles (claims 13-14); the transmittance (claim 16); a path difference (claim 17); the yellowness of the screen (claim 18); the weathering (claim 19); embossing the backing layer with an embossing roll (claim 26); and the yellowing index of the backing layer (claim 27).

The Murayama et al. rear projection screen does not inherently have the claimed properties because the Murayama et al. layers T1 and T2 do not have the claimed have half gain angles and the Murayama et al. rear projection screen is produced by a different method. For example, a mixture for the first layer was coated on a glass plate and was heated and dried at 50°C for 10 min and further at 100 °C for 10 min and the dried film was exfoliated from the glass plate, thereby the first film was obtained (see Example 1-2 referred to by the

Examiner). Further, the Murayama et al. method comprises lamination of the layers verse co-extrusion described in the present specification, different temperatures and hold time, and different material (see the Examples of the present specification and, for example, Examples 1-2 of Murayama et al.). The claimed backing layer is produced via extrusion and is embossed (see, e.g., paragraph (D), page 41 of the present specification) and may not contain scattering particles (claim 25). The first film appears to be in a position of the claimed backing layer and the second layer appears to be in a position of the claimed scattering layer (see, for example, [0154] for the layer arrangement).

The legal requirement for inherency is that “each and every time” the Murayama et al. rear projection screen is produced, the screen necessarily has the claimed characteristics. It is incorrect because, for example, the Murayama et al. layers T1 and T2 do not have the claimed half gain angles and both layers comprise scattering particles while the claimed screed may not comprise scattering particles (see claim 25). “The fact that certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of the result or characteristic.” See MPEP §2112.IV (citing *In re Rijckaert*, 9 F.3d 1531 (Fed. Cir. 1993)) (emphasis in original).

In a recent decision, the Board stated that when the claimed and prior art compositions comprise similar components, even if some of the art compositions might have the claimed properties, that possibility is not adequate to support a finding of inherency. *Ex parte Thomas*, Appeal 2007-4423 (July 23, 2008). The Examiner must provide some evidence to establish the reasonableness of the examiner’s believe that the functional limitation is inherent. *Id.*

Thus, Murayama et al. do not anticipate the claimed rear projection screen.

(2) *Murayama et al. do not make the claimed rear projection screen obvious.*

The Examiner has alleged that because the Murayama et al. rear projection screen with two layers (e.g, PMMA layers) comprising scattering particles having the claimed half-intensity angles, it would have been obvious to “choose from a finite number of predictable solutions” and/or to optimize “result effective variables” to obtain a desired result (see page 8 of the Official Action).

First, the Examiner has not explained why or provided any support for the assertion that there is “a finite number” of the characteristics to choose from and why “solutions are predictable.”

The characteristics such as, e.g., half-intensity angles, the gloss, yellowing index, transmittance, and weathering resistance are represented by a very large number (i.e., a number is not finite).

Further, the claimed characteristics (e.g., half-intensity angles, the gloss, yellowing index, transmittance, weathering resistance, etc.) are not result effective variables (i.e., the solution is not predictable). Specifically, for optimizing, for example, half-intensity angles, the gloss, yellowing index, transmittance, and weathering resistance, the prior art must first recognize a particular parameter as a result-effect variable, i.e., that the improved image reflection in the room, high picture quality, high picture sharpness and resolution of the projected picture, good color accuracy, uniform brightness distribution and maximum mechanical stability, high picture steadiness, high durability, high resistance to UV irradiation and weathering, and imaging properties are the functions of, e.g., half-intensity angles, the gloss, yellowing index, transmittance, and weathering resistance. MPEP 2144.05. II, e.g., *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). Murayama et al. do not recognize these dependencies.

In a recent decision, the Board stated that while the discovery of an optimum value of a variable in a normally obvious, this is not always the case. *Ex parte Thomas*, Appeal 2007-

4423 (July 23, 2008). One exception to the rule is where the parameter optimized was not recognized in the prior art as one that would affect the results. *Id.* The Examiner has to point to a teaching in the cited reference or provide any explanation based on scientific reasoning, that would support the conclusion that those skilled in the art would have considered it obvious to optimize the prior art composition to the level recited in the claims. *Id.*

Lastly, one would not have been motivated to modify the Murayama et al. screen to obtained the claimed characteristics because Murayama et al.'s goal is to improve an angle of a visual field, shock resistance, and light transmission of the screen, while the claimed screen possesses the improved image reflection in a room, high picture quality, high picture sharpness and resolution of the projected picture, good color accuracy, uniform brightness distribution and maximum mechanical stability, high picture steadiness, high durability, high resistance to UV irradiation and weathering, and imaging properties are functions of half-intensity angles, the gloss, yellowing index, transmittance, and weathering resistance (pages 5-6 of the present specification).

Thus, Murayama et al. do not make the claimed screen obvious. Applicants request that the rejection be withdrawn.

Claims 1-24 are rejected on the ground of nonstatutory obviousness-type double patenting over claims 1-26 of US Patent 7,339,732 ("the '732 patent"). Applicants have filed a terminal disclaimer with this paper.

Applicants request that the rejection be withdrawn.

A Notice of Allowance for all pending claims is requested.

Respectfully submitted,

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PATENT COOPERATION TREATY

PCT

NOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

To:

RÖHM GMBH & CO. KG
Intellectual Property Management
Kirschenallee
64293 Darmstadt
Germany

Date of mailing (day/month/year) 03 May 2004 (03.05.2004)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 2183/Dr.Got/	
International application No. PCT/EP2004/002627	
International publication date (day/month/year) Not yet published	
	International filing date (day/month/year) 12 March 2004 (12.03.2004)
	Priority date (day/month/year) 04 August 2003 (04.08.2003)
Applicant RÖHM GMBH & CO. KG et al	

- By means of this Form, which replaces any previously issued notification concerning submission or transmittal of priority documents, the applicant is hereby notified of the date of receipt by the International Bureau of the priority document(s) relating to all earlier application(s) whose priority is claimed. Unless otherwise indicated by the letters "NR", in the right-hand column or by an asterisk appearing next to a date of receipt, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- (If applicable) The letters "NR" appearing in the right-hand column denote a priority document which, on the date of mailing of this Form, had not yet been received by the International Bureau under Rule 17.1(a) or (b). Where, under Rule 17.1(a), the priority document must be submitted by the applicant to the receiving Office or the International Bureau, but the applicant fails to submit the priority document within the applicable time limit under that Rule, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- (If applicable) An asterisk(*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b) (the priority document was received after the time limit prescribed in Rule 17.1(a) or the request to prepare and transmit the priority document was submitted to the receiving Office after the applicable time limit under Rule 17.1(b)). Even though the priority document was not furnished in compliance with Rule 17.1(a) or (b), the International Bureau will nevertheless transmit a copy of the document to the designated Offices, for their consideration. In case such a copy is not accepted by the designated Office as priority document, Rule 17.1(c) provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
04 Augu 2003 (04.08.2003)	103 36 131.6	DE	13 Apri 2004 (13.04.2004)

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10/566370
PCT/PTO 30 JAN 2006

DOCKET NO.: 283841US0PCT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Markus PARUSEL, et al.

SERIAL NO.: NEW U.S. PCT APPLICATION

FILED: HERewith

INTERNATIONAL APPLICATION NO.: PCT/EP04/02627

INTERNATIONAL FILING DATE: March 12, 2004

FOR: STABLE REAR PROJECTION SCREEN AND METHOD FOR THE PRODUCTION THEREOF

REQUEST FOR PRIORITY UNDER 35 U.S.C. 119
AND THE INTERNATIONAL CONVENTION

Commissioner for Patents
Alexandria, Virginia 22313

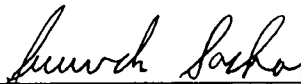
Sir:

In the matter of the above-identified application for patent, notice is hereby given that the applicant claims as priority:

<u>COUNTRY</u>	<u>APPLICATION NO</u>	<u>DAY/MONTH/YEAR</u>
Germany	103 36 131.6	04 August 2003

Certified copies of the corresponding Convention application(s) were submitted to the International Bureau in PCT Application No. PCT/EP04/02627. Receipt of the certified copy(s) by the International Bureau in a timely manner under PCT Rule 17.1(a) has been acknowledged as evidenced by the attached PCT/IB/304.

Respectfully submitted,
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**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

ATTORNEY'S DOCKET NUMBER
283841US0PCT

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)
10/566370

INTERNATIONAL APPLICATION NO.
PCT/EP04/02627

INTERNATIONAL FILING DATE
March 12, 2004

PRIORITY DATE CLAIMED
August 4, 2003

TITLE OF INVENTION
STABLE REAR PROJECTION SCREEN AND METHOD FOR THE PRODUCTION THEREOF

APPLICANT(S) FOR DO/EO/US
Markus PARUSEL, et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
 2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
 3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.
 4. ☐ The US has been elected (Article 31).
 5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
 - b. ☒ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
 6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. ☒ is attached hereto.
 - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
 7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
 8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
 9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
 - a. ☐ If the declaration is in a language other than the English language, it is accompanied by an English translation. The translation is accurate (37 CFR 1.69)
 10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).
 11. ☐ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
 12. ☒ A copy of the International Search Report (PCT/ISA/210).
- Items 13 to 23 below concern document(s) or information included:**
13. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
 - a. ☒ PTO-1449
 - b. ☒ Cited References 8
 - c. ☒ Statement of Relevancy
 - d. ☐ List of Related Cases.
 14. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
 15. ☒ A **FIRST** preliminary amendment.
 16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
 17. ☒ An Application Data Sheet under 37 CFR 1.76.
 18. ☐ A substitute specification.
 19. ☒ A power of attorney and/or change of address letter.
 20. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.
 21. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
 22. ☐ A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).
 23. ☒ Other items or information: Notice of Priority/PCT/IB/304